

MARK ZHU

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Currently student visa but will have open work visa by March 2020

Graduated on November 4th

<https://github.com/MarkZhuVUW?tab=repositories>

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Objective: One of New Zealand's best Full-stack Web Developer.

Overview

- **Good grades at university:** I have an average **A** in the recent year 2019. I have an average B+ in all courses I have done.
- **Good verbal & written skills:** In the invenco internship I was able to contribute and communicate professionally to my team with minimal guidance. I learned to translate business requirements as JIRA tickets and plan reasonable and complete-able tasks for each sprint.
- **Enthusiastic programmer and Efficient Employee:** I managed to complete my assigned tasks one month earlier through hard work. During the internship I salvaged my spare time and made another full-stack app. Once it is complete I will host it and register my own domain for it but for now please see the Github: <https://github.com/MarkZhuVUW/My-MERN-stack-Admin-App/blob/master/README.md>

TECHNICAL SKILLS

- | | |
|---------------------|---|
| ● Java | ● Agile Methodologies |
| ● OOP | ● Express.js |
| ● Javascript | ● HTML5 & CSS3 |
| ● React | ● Postgres(JDBC) |
| ● Node.js | ● Swagger UI/Postman |
| ● REST API | ● JUnit Testing |
| ● MongoDB | ● Concurrency handling in Java and Javascript |
| ● Redux | |

QUALIFICATIONS

2016-2019: BSc in Computer Science, Victoria University of Wellington.

2011-2014: High school diploma from Nantou high school, Shenzhen, China.

WORK HISTORY

25 Nov 2019 - 21 Feb 2020: **Software Developer Intern** at Invenco.

First Two Months:

I was responsible for developing a proof of concept fullstack(MERN-stack) web app for Invenco. **React**, **Material UI**, **Redux** are used for front-end. **Node.js** and **Express.js** are used for creating server and developing **REST APIs**. **Postman** and **SwaggerUI** are used to test and document the APIs. **MongoDB** and **Postgres** are used as relational database and document-based database respectively for different usage. I had practice with designing PATCH, POST, GET, DELETE requests. As an intern in a agile development team at Invenco, I attended the daily stand-ups, used **JIRA** for issue tracking and used **git** extensively to contribute to existing repository created by Devops. The most valuable experience I gained in this internship is how to collaborate in a team environment and how to translate requirements into small chunks of challenges to tackle in every sprint.

Last Month:

Invenco provides SDK for their "Outdoor Payment Terminals" to customers and it is up to the customers to develop their own SDK applications that run on the OPTs. The current SDK developer guide does not include **Java** and so I was tasked to make a few **Java** examples to demonstrate what the OPTs can do. During this time I had some exposure in writing **batch scripts** on windows and using **Google Protocol Buffer**(similar to XML) to develop simple APIs.

Mar 2019 – Nov 2019: **C Tutor**, Victoria University Wellington, New Zealand

I prepared and ran helpdesks, marked student assignments and programming projects. I learned how to better debug other people's code. I learned a lot how to help students with different computing backgrounds overcome difficulties in C programming language. The most valuable skill I acquired from this tutoring experience is the ability to communicate programming knowledge with people.

Mar 2019 - Jul 2019 **C++/C Tutor**, Victoria University Wellington, New Zealand

I mainly ran labs to help students with their C/C++ assignments and projects. I marked student assignments and gave feedback on the bugs in their work. Since this is my first tutoring job I am thankful for the constant support and patience from all the students attending my labs and the course coordinator whenever I fail to answer a question. I am also thankful for the course coordinator to be tolerant with the mistakes I made in this job. What I learned most from this job is to always be modest and know when to ask questions.

PROJECTS(Github username: MarkZhuVUW)

25 Nov 2019 - 21 Feb 2020

- A **MERN-stack** admin & CV app which logs and analyzes user events, page views and CV views and features Role-based Access control. **React**, **Material UI**, **Redux** for front-end, integrating Google Two Factor Authentication, Google Analytics. **Node.js** and **Express.js** for server and **REST API** development. **Swagger UI** and **Postman** for testing and documenting APIs.

2018 – 2019

- A virtual road maintenance app made using **Javascript(Angular)**, **css**, **html** and **json**. Developed using **agile** methods (**Scrum**, **Trello**).
- A fun little **Java** program simulating a safety-critical system called “Steam boiler”.
- Did **Automated Testing** in **Java** for firmwares running on an “AVR ATtiny85” and a **stack analysis** for AVR programs.
- Developed a news app with the **Ionic** framework and **Typescript** and an Instagram clone app using **React Native**. **Firebase** is used as cloud service.
- Having fun expanding a small existing compiler for a language called “While” in **Java**.
- A **concurrent programming** school project: particle simulator built in **Java** and a few small practice projects writing **Java** concurrently.
- Made a relational database schema with **PostgreSQL** and had practices querying the database.
- An **IoT** mobile app using **MQTT broker**. For this project I need to receive message from MQTT broker, which collects information from motion sensors, to help monitor seniors who are living alone. Done with the **Ionic** framework
- A library booking system done with the JDBC library of **Java** and **PostgreSQL** with the GUI constructed in **Java SWING**.

2017 – 2018

- A path-finding Auckland Roadmap system built in **Java**, utilizing **Java inheritance**, **polymorphism**, **encapsulation** and some **GUI building** using SWING. I have learned a lot about data structures and algorithms and tried to implement some of them in this program including **A***, **Quadtree**, **Trie**.
- A 3d(ray-casting) room-escaping game made in **Java**, utilizing a game saving/loading mechanism, a 2d minimap, a 3d view and a map editor using the **MVC** design pattern.
- A **textual interface** and a **graphical interface** for the board game “Cluedo” written in **Java** using the **MVC** design pattern.

Hobbies & interests

Sleep, travel, code

LANGUAGES

English: Proficient. Achieved an overall score of 7.5 in **IELTS** and enhanced my English in the 3 years of undergraduate study at Victoria University.

Chinese: native speaker.

REFEREES

Available on request.